

CLAIMS

1. A computer-implemented method, comprising:
  - receiving input specifying a path including a plurality of locations ordered  
5 along the path;
  - for each location in the plurality of locations, specifying a tracking zone based on the location and a previous location preceding the location along the path, the tracking zone indicating a direction of the path at the location; and
  - detecting a backward motion between a first and a second location in the path  
10 if the first location's tracking zone overlaps with the second location's tracking zone.
2. The method of claim 1, wherein the path further includes a starting location, the method further comprising:
  - specifying a tracking zone for the starting location.
3. The method of claim 1, further comprising:  
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  - evaluating the first location's tracking zone and the second location's tracking zone to verify whether the first tracking zone overlaps with the second tracking zone.
4. The method of claim 1, further comprising:
  - for each location in the plurality of locations, associating the location with a corresponding influence region having a predefined shape.
- 20 5. The method of claim 4, wherein the influence region represents a paintbrush.
6. The method of claim 4, wherein:
  - specifying a tracking zone for a location in the plurality of locations based on the location and a previous location in the path comprises specifying a tracking zone that is inside the influence region of the location and outside the influence region of  
25 the previous location.

7. The method of claim 1, further comprising:  
deleting a portion of the path if a backward motion is detected between the  
first and second locations, the deleted portion of the path connecting the first location  
5 to the second location and including one or more locations in the plurality of locations  
in the path.
8. The method of claim 7, wherein receiving input specifying a path includes:  
receiving two or more input points; and  
specifying the plurality of locations in the path based on the two or more input  
10 points.
9. The method of claim 8, wherein:  
specifying the plurality of locations in the path comprises interpolating  
between two input points.
10. The method of claim 8, wherein:  
15 receiving two or more input points comprises receiving two or more input  
points in a two dimensional space.
11. The method of claim 8, wherein:  
receiving two or more input points comprises receiving two or more input  
points in a three dimensional space.
- 20 12. The method of claim 7, further comprising:  
presenting the path on a surface.
13. The method of claim 7, wherein:  
the plurality of locations in the path comprises contiguous raster points.
14. The method of claim 7, wherein:

the first location precedes the second location along the path; and  
deleting a portion of the path includes deleting the first location from the path.

15. The method of claim 7, further comprising:

5                   defining a new portion of the path, the new portion replacing the deleted  
portion.

16. The method of claim 15, further comprising:

specifying a tracking zone for each of the one or more new locations.

17. The method of claim 15, further comprising:

specifying a new tracking zone for the second location.

10           18. The method of claim 1, wherein:

receiving input includes receiving user input from a pointing device.

19. A system for processing graphical input, the system comprising:

an interface that receives input specifying a path, the path including a plurality  
of locations; and

15                   a backward motion detector that specifies a tracking zone for each location in  
the path based on the location and a previous location preceding the location along  
the path, and detects a backward motion if two of the specified tracking zones  
overlap.

20. The system of claim 19, wherein:

20                   the interface comprises a pointing device to generate the input specifying the  
path.

21. The system of claim 19, further comprising:

a drawing component that corrects the path if a backward motion is detected.

22. The system of claim 19, further comprising:

a non-drawing component receiving a notification from the backward motion detector if a backward motion is detected.

23. A system for processing graphical input, the system comprising:

means for receiving input specifying a path including a plurality of locations  
5 ordered along the path;

means for specifying a tracking zone for each location in the plurality of locations based on the location and a previous location preceding the location along the path, the tracking zone indicating a direction of the path at the location; and

means for detecting a backward motion between a first and a second location  
10 in the path if the first location's tracking zone overlaps with the second location's tracking zone.

24. The system of claim 23, further comprising:

means for deleting a portion of the path if a backward motion is detected between the first and second locations, the deleted portion of the path connecting the first location to the second location and including one or more locations in the  
15 plurality of locations in the path.

25. The system of claim 23, further comprising:

means for generating the input specifying the path.

26. A software product tangibly embodied in a machine-readable medium, the software

product comprising instructions operable to cause one or more data processing  
20 apparatus to perform operations comprising:

receiving input specifying a path including a plurality of locations ordered along the path;

for each location in the plurality of locations, specifying a tracking zone based  
25 on the location and a previous location preceding the location along the path, the tracking zone indicating a direction of the path at the location; and

detecting a backward motion between a first and a second location in the path

if the first location's tracking zone overlaps with the second location's tracking zone.

27. The software product of claim 26, wherein the path further includes a starting location, the software product further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
5 specifying a tracking zone for the starting location.
28. The software product of claim 26, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
evaluating the first location's tracking zone and the second location's tracking zone to verify whether the first tracking zone overlaps with the second tracking zone.
- 10 29. The software product of claim 26, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
for each location in the plurality of locations, associating the location with a corresponding influence region having a predefined shape.
30. The software product of claim 29, wherein the influence region represents a  
15 paintbrush.
31. The software product of claim 29, wherein:  
specifying a tracking zone for a location in the plurality of locations based on the location and a previous location in the path comprises specifying a tracking zone that is inside the influence region of the location and outside the influence region of  
20 the previous location.
32. The software product of claim 26, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
deleting a portion of the path if a backward motion is detected between the first and second locations, the deleted portion of the path connecting the first location  
25 to the second location and including one or more locations in the plurality of locations

in the path.

33. The software product of claim 32, wherein receiving input specifying a path includes:  
receiving two or more input points; and  
specifying the plurality of locations in the path based on the two or more input  
5 points.

34. The software product of claim 33, wherein:  
specifying the plurality of locations in the path comprises interpolating  
between two input points.

35. The software product of claim 33, wherein:  
10 receiving two or more input points comprises receiving two or more input  
points in a two dimensional space.

36. The software product of claim 33, wherein:  
receiving two or more input points comprises receiving two or more input  
points in a three dimensional space.

15 37. The software product of claim 32, further comprising instructions operable to cause  
one or more data processing apparatus to perform operations comprising:  
presenting the path on a surface.

38. The software product of claim 32, wherein:  
the plurality of locations in the path comprises contiguous raster points.

20 39. The software product of claim 32, wherein:  
the first location precedes the second location along the path; and  
deleting a portion of the path includes deleting the first location from the path.

40. The software product of claim 32, further comprising instructions operable to cause  
one or more data processing apparatus to perform operations comprising:

defining a new portion of the path, the new portion replacing the deleted portion.

41. The software product of claim 40, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
5 specifying a tracking zone for each of the one or more new locations.

42. The software product of claim 40, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:  
specifying a new tracking zone for the second location.

43. The software product of claim 26, wherein:  
10 receiving input includes receiving user input from a pointing device.